BRUHAT BENGALURU MAHANAGARA PALIKE
Modified Schedule B

me Of Work : Compreshensive development of roads and drains in Muthyalanagara, LC-4A, ohankumarnagara, Sundar nagara and surrounding areas in ward no-17 under PACKAGE-2019-20 RRN-DIV-(09)

Sl	Description of Item	Unit	Schedule B		
			Qty	Rate	Amount
1	2	3	4	5	6
1	Removing & Refixing stone slabs of drains and pointing in C.M (1:3)Complete as per the direction of Engineer in charge with all lead and lift	Sqm	13265.28	112.00	1485711.36
2	Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications Complete as per the direction of Engineer in charge with all lead and lift	Cum	12285.84	238.00	2924030.05
3	Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 m nominal size mechanically mixed, placed in foundation and compacted by vibration including curing complete as per specifications Complete as per the direction of Engineer in charge with all lead and lift	Sqm	302.10	4524.00	1366709.45
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications.Wall & bottom thickness 15cm Complete as per the direction of Engineer in charge with all lead and lift	Cum	637.09	7141.00	4549452.55
5	Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. Complete as per the direction of Engineer in charge with all lead and lift	ton	40.46	73050.00	2955756.24
6	Providing and constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton per sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x15x20cms conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications.-do with solid concrete blocks of size 400*200*200 mm Complete as per the direction of Engineer in charge with all lead and lift	Sqm	10331.60	976.00	10083642.77
7	Providing ruled pointing to coursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, HOM curing complete as per specifications.- do - cement mortar 1:3 Complete as per the direction of Engineer in charge with all lead and lift	Sqm	31676.80	152.00	4814874.33
8	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in For Coping , including cost of all materials, labour, HOM curing omplete as per specifications. SComplete as per the direction of Engineer in charge with all lead and lift	Cum	1187.88	5656.00	6718672.58
9	Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete.- do - 10 cms thick Complete as per the direction of Engineer in charge with all lead and lift	Sqm	7085.92	976.00	6915858.1

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11	Providing one line dressing to granite stone slab / granite stone masonry as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Sqm	7085.92	960.00	6802485.79
12	Providing chamfering edges to stone slab 2.5 cms. Wide as per specifications. (only chamfered length shall be recorded) Complete as per the direction of Engineer in charge with all lead and lift	Sqm	33068.00	62.00	2050216.00
13	Providing and Fixing RCC Precast Cover Slab of 250 mm Thick for Drains in Cement Concrete M-20 using graded granite jelly of 20 mm and down size with steel Reinforcement, including form work lift charges, curing and concrete finished surface on both sides etc., as per drawing and the direction of Enginner-in-charge.Data Rate	Sqm	219.20	5476.00	1200339.20
14	Removing and resetting of kerb stones.Complete as per the direction of Engineer in charge with all lead and lift	Sqm	14047.80	106.00	1489066.54
15	Providing and fixing pre cast solid concrete kerb stones of size 450x150x500 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing, cutting etc., Complete as per the direction of Engineer in charge with all lead and lift	no's	20700.00	460.00	9522000.00
16	Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Cum	2316.13	85.00	196871.39
17	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Cum	2215.04	2000.00	4430084.00
18	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Cum	3397.56	2000.00	6795128.80
19	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 Complete with all lead and lift and as per the direction of the Engineer-in-Charge.	Sqm	14772.01	30.00	443160.30
20	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Sqm	56510.87	5.00	282554.35
21	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Sqm	127818.54	13.00	1661641.02
	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. Clause 505 of morth V revision using 40/60 TPH capacity H.M.P. with mechanical paver Gr-II (50mm to 75mm) with 4.5% VG-30 Bitumen. Complete as per the direction of Engineer in charge with all lead and lift	Cum	3564.77	7010.00	24989006.16

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22	Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision. -using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen Complete as per the direction of Engineer in charge with all lead and lift	Cum	2851.81	8010.00	22842985.28
23	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. Complete as per the direction of Engineer in charge with all lead and lift	Sqm	2721.89	463.00	1260235.07
ERIL 1	Geophysical investigation of site for Sinking borewell for supplying drinking water to the habitations either through the hand pump,MWS,P.W.S.S by vertical electrical sounding by adpoting venner or Schlumberger's method,including reconnaissance survey of Geological formation. Geophysical investigation of existing ground indecundity its quality & acceptability of the users indicating the location of site,recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre inconsolidated formation for proper seating of casing pipe,depth of drilling required to cover full depth of aquifer proposed to be tapped,probable yield and other information required including transportation of instrument and accesories to work site,engaging technical personal and labour required etc.,(Issue rate as on date 02/05/2019 It.13.04)	No;s	6.00	3805.68	22834.08
ERIL 2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) (Issue rate as on date 02/05/2019 It.13.01)	Rmt	300.00	350.47	105141.00
ERIL 3	50 to 100 m	Rmt	300.00	446.42	133926.00
ERIL 4	100 to 150 m	Rmt	300.00	460.56	138168.00
ERIL 5	150 to 200 m	Rmt	300.00	541.36	162408.00
ERIL 6	200 to 250 m	Rmt	300.00	640.34	192102.00
ERIL 7	250 to 300 m	Rmt	300.00	707.00	212100.00
ERIL 8	300 to 350 m	Rmt	300.00	833.25	249975.00
ERIL 9	350 to 400 m	Rmt	300.00	909.00	272700.00
ERIL 10	400 to 420 m	Rmt	120.00	1140.29	136834.80
ERIL 11	Providing and fixing 250mm dia PVC (casing pipe) (page no.XXXI, SL no.909) (KPWD SR 2016-17)	Rmt	72.00	2626.00	189072.00
ERIL 12	Supply of ISI Mark 175mm nominal Bore, Plain end steel casing Pipe-grade of steel Fee 4100 of wakk thickness 504mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel electric or basic oxygen process in fandom length of 5 to 7mtr. Both ends threaded confirming to Is554/1985 one end fixed with socket confirming to IS 270:2001 and other end with screwed pipes. All pipes shall be reasonably free from defectes. The tubes shall be resonably straigth should be with ISI Marking Weighting 25.10 kg/mtr (Inclusive of all taxes and durties) Prices include Collar - medium duty. (Page No.III,It no.84)PRED SR 2012-13.	Rmt	420.00	1338.25	562065.00
ERIL 13	Providing 175mm Dia M.S. Collar (P.No.iii,I.No.86) PRED SR 2012-13	No	70.00	151.50	10605.00
ERIL 14	Providing 175mm dia Bore Cap CE (M) (P.No.iii,I.No.85) PRED SR 2012-13	No	6.00	101.00	606.00
ERIL 15	Atalanta suguna CRI KIRLOSKAR and other equipments pumps 10.00 HP/7.5 KV (20 stage) (Pg No. XLI. Sl.no.29) KPWD SR-2018-19	No	6.00	50454.55	302727.30

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	Providing and fixing in trenches galvinised/mild steel tube 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for seperately) including cost of all materials, labour charges,HOM of equipment and testing complete as per specifications. Specification No. KBS 13.2.14/13.6 (page no.92/lt no.13.15)KPWD SR 2018-19.	Rmt	2268.00	415.39	942110.87
17	Supplying and drawing 3 core flat PVC sheathed submersible pump cable maufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and power coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of group A 3CX4.0 sq.mm (PWD Ele SR 2014-15,P-12/lt 2.10.3)	Rmt	4596.00	127.97	588136.33
18	Previding and fixing in position 50mm Nominal bore non-return valve vertical type of approved make including cost of all materials,labour and HOM of equipment with all leads complete as per specifications.(PWD SR 18-19,P-95/lt no.13.62)	No	6.00	1358.59	8151.55
19	Spplying and fixing 50mm GI Union.(PWD SR 2018-19,P-XXXIX)	No	6.00	225.94	1355.62
20	Spplying and fixing 50mm GI Elbow.(PWD SR 2018-19,P-XXXIX)	No	6.00	112.92	677.51
21	Spplying and fixing 50mm GI Nipple.(PWD SR 2018-19,P-XXXIX)	No	6.00	105.34	632.06
22	Spplying and fixing 50mm GI Hose colleres(PWD SR 2018-19,P-XXXIX)	No	378.00	104.03	39323.34
23	Supplying and fixing 20" x 20" x 2.5" polished wood board made of not less than 15mm thick plank on both the sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P.no.44 / l no. 6.6.6 KPWD ELE SR 2019-20	No	6.00	305.02	1830.12
24	Supplying and fixing miniature circuit breakers on existing MCB distribution board using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.(PWD Ele SR 2019-20,P-47/Sl no.6.16.6) 40-63 Amps	No	6.00	1955.36	11732.16
25	Supplying of TPST with rewirable porcelain channels in SM encloser made out of 14 SWG powder coated point of approved colour 32 amps (PWD Ele SR 2019-20,P-24,lt-5.5.1)	No	6.00	1818.00	10908.00
26	Supplying and fixing LED type panel board indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC(PWD Ele SR 2019-20,p-29,Sl no.5.38)	No	6.00	434.30	2605.80
27	Suppling fully automatic star delta starter unit push button type with suitable wires 2 conductors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts phase and wired after fixing to the existing wooden board for motor. upto 12.5HP(PWD Ele SR 2019-20,p-24,Sl no.-5.2.1)	No	6.00	6464.00	38784.00
28	Supplying and fixing single phase preventer using necessary wires over an existing panel board suitable for motar up to 20 HP capacities.(PWD Ele SR 2019-20,p-44/Sl no.5.3)	No	6.00	752.45	4514.70
29	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of group A. 4 sqmm (PWD Ele SR 2019-20,p-6,lt-2.3.4(d)	Mtrs	120.00	45.45	5454.00
30	Supplying fixing and wiring heavy duty low voltage capacitors conforming to IS 2834 phase 400/440 volts grade, for power factor improvement of rotating machinery.(PWD Ele SR 2019-20,p-29/Sl no.5.37)	No	24.00	404.00	9696.00
31	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia (PWD Ele SR 2019-20,p-40,Sl no.6.1)	No	6.00	3029.70	18178.18
32	Digging of trench of 0.36mtrs deepx0.5 mtrs wide refilling the trench to the required gorund level and consolidating etc., complete (PWD Ele SR 2019-20,p-41,lt-6.6.2) hard soil	Mtrs	48.00	103.02	4944.96

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33	Supplying laying 1.1 KV class LT UG cable having aluminium conductor PVC insulated extruded inner shethed galvanised steel strip (excep 2cx 10 sqmm wire armoured) confirming to IS-3975:1990 (No. of strip indicated in GTP) and extruded PVC outer sheathed armoured cable with specified IS-1554,part-1:1988 and confirming to the attached GTP of group A 4 core 16 sq mm PWD Ele SR 2019-20,p-40,It-6.4.4)	Mtrs	60.00	151.50	9090.00
34	Labour charge for laying 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe/ on wall / on poles as required in existing trench/duct. 6 sq mm to 16 sq mm(PWD Ele SR 2019-20,p-41,It-6.5.1)	No	150.00	11.92	1787.70
35	Supplying and fixing class-A(medium duty) GI pipe wall thickness not less then 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1KV class 40mm(PWD Ele SR 2019-20,p-41,It-6.9.1)	Rmt	12.00	338.35	4060.20
36	Supplying and fixing LT cast iron pot heads suitable for 1.1KV class UG cable filled with necessary bitumen / insulating compound complete with terminals,clamps bolts and nuts and washer etc.,complete for 16 sq mm as per specifications.(PWD Ele SR 2019-20,p-42,It-6.10.2)	No	6.00	272.70	1636.20
37	Supplying and fixing porcelain fuse channel with cut out on the existing wooden block and wiring complete 63 amps(PWD Ele SR 2019-20,p-25,It-5.7.3)	No	18.00	229.27	4126.86
38	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials upto a lead of 1000 meters, stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 (KPWD SR 2018-19, P-140, It 18.47)	Cum	85.86	962.47	82637.62
EKIL 39	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 (KPWD SR 2018-19, P-6, It-2.4)	Cum	128.79	480.70	61909.28
EKIL 40	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (external work) - 50mm nominal OD pipes (KPWD SR 2018-19, P-99, It-13.87.6)	Cum	954.00	462.50	441224.24
EKIL 41	Making connection of G.I.distribution branch with G.I.main of 25mm to 40mm. Nominal bore, including cutting and threading the pipes,providing and fixing Tee, nuts,labour for all item of works,testing and HOM of equipments complete as per specifications. (P.No.93/ I.No. 13.20 of KPWD SR 2018-19)	no	6.00	517.10	3102.60
EKIL 42	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete. (external work). - 20mm nominal OD pipes (KPWD SR 2018-19, P-98, It-13.85.2)	Mtrs	96.00	168.08	16136.08
EKIL 43	Providing and fixing to wall, ceiling and floor Medium density polyethylene pipes 6.00 kgf/sq.cm working pressure 25mm outside diameter with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No.KBS 13.2.15.1 / 13.9 (KPWD SR 2018-19, P-95, It-13.67)	Mtrs	912.00	138.11	125953.95
EKIL 44	KSRB 2-4 : Refilling available around earth pipe lines,cables in layers mot exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. And lift upto 1.5m. Including cost of all labour complete as per specifications.(KPWD SR 2018-19, P-7, it-2.11)	Cum	90.15	129.54	11678.65

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	Loading and unloading of stone boulder/stone aggregates/sand/kanker/ moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1 (KPWD SR 2018-19,P.-136, it.17.1)	Cum	124.50	98.94	12317.68
46	KSRR 2-4 : Providing and fixing in position brass gate valve with C.I.wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials,labour and HOM of equipments with all leads complete as per specifications. (P.No.94/ I.No. 13.37 of KPWD SR 2018-19)	no's	6.00	1861.77	11170.64
47	KSRR13-6.2-1 : Providing and fixing in position brass stop cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No KBS 13.2.2 / 13.3 (Pg No:-93/I.No:-13.26 of KPWD SR 2018-19 2018-19)	n	6.00	150.95	905.73
48	KSRR 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3 of KPWD SR 2018-19)	Cum	42.93	5861.86	251649.49
	Sub Total				131200167.64

EXECUTIVE ENGINEER
RR Nagar Division

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